

Notice of Allowability

Application No.

09/855,292

Examiner

Dennis Rosario

Applicant(s)

MACY, WILLIAM W.

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AF 1/4/2007.
2. ☒ The allowed claim(s) is/are 1-3, 6, 7, 11-13, 16, 17, 21-23, 26, 27, 32 and 34-36.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 6/30/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 1/22/07
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joni D. Stutman-Horn, Reg. No.: 42,173 on 1/22/06.

The application has been amended as follows:

Claim 1, line 6 insert after "areas of the smoothed image as determined by the edge detection; and" --detecting an edge in the enhanced image; and--

Claim 1, line 8 insert after "enhanced image as determined by the edge detection" --of the enhanced image--

Claim 7, line 5 insert after "to produce an enhanced image; and" --detecting an edge in the enhanced image; and--

Claim 7, line 8 insert after "determined by the edge detection" --of the enhanced image--

Claim 11, line 8 insert after "the smoothed image as determined by the edge detection; and" --detecting an edge in the enhanced image; and--

Claim 11, line 10 insert after "image as determined by the edge detection" --of the enhanced image--

Claim 17, line 7 insert after "produce an enhanced image; and" --detecting an edge in the enhanced image; and--

Claim 17, line 10 insert after "determined by the edge detection" --of the enhanced image--

Claim 21, line 9 insert after "non-edge area of the smoothed image as determined by the edge detection; and" --detecting an edge in the enhanced image; and--

Claim 21, line 11 insert after "enhanced image as determined by the edge detection" --of the enhanced image--

Claim 27, line 9 insert after " image to produce an enhanced image," -- detecting an edge in the enhanced image; and--

Claim 27, line 11 insert after "edge areas of the enhanced image as determined by the edge detection" --of the enhanced image--

Response to Amendment

2. The after final amendment was received on 1/4/2007. Claims 1-3,6,7,11,12,13,16,17,21-23,26,27,32 and 34-36.

Claim Rejections - 35 USC § 112

3. Due to the amendment, the rejection of claims 9,19 and 29 is withdrawn.

Response to Arguments

Applicant's arguments, see page 10, lines 5,6, filed 1/4/2007, with respect to 103(a) have been fully considered and are persuasive. The rejection of claims 1-3,6,7,11,12,13,16,17,21-23,26,27,32 and 34-36 has been withdrawn.

Allowable Subject Matter

4. Claims 1-3,6,7,11,12,13,16,17,21-23,26,27,32 and 34-36 allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, applicants properly point out, stating on page 10, lines 5,6 ,
“The statistical filtering of Parker et al. is not suggested for the enhanced image that has been smoothed as required by Applicant’s claim.”

Hence, and in view of applicants arguments, amendment and in combination with all of the other elements of the claim, claim 1 is allowable over the closest prior art of Parker et al. (US Patent 5,323,247 A1).

Claims 7,11,17,21 and 27 are allowable for the same reasons as claim 1.

Any remaining dependent claims are allowable for depending on an allowable parent claim.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Damera-Venkata et al. (IEEE article : Fast Blind Inverse Halftoning) is pertinent as teaching a method of low-pass filtering , “ σ_1 ” in fig. 1, with a median filter, “Median filter” (shown twice) as shown in fig. 1 with edge detection as represented in fig. 1 as “B” and “E”. However, the claimed performing lowpass filtering on the smoothed is not present in figure 1, and instead a “Bandpass filter” in figure 1 is used on a smoothed image, “S”, in fig. 1.

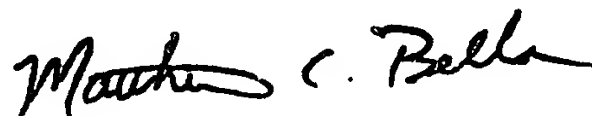
Art Unit: 2624

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system; call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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